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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/626,259

07/24/2003

Zhong Ding

961_013NP

9582

20874 7590 03/14/2007
MARJAMA & BILINSKI LLP
250 SOUTH CLINTON STREET
SUITE 300
SYRACUSE, NY 13202

EXAMINER

GORDON, BRIAN R

ART UNIT

PAPER NUMBER

1743

MAIL DATE

DELIVERY MODE

03/14/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

8

Interview Summary	Application No.	Applicant(s)	
	10/626,259	DING ET AL.	
	Examiner	Art Unit	
	Brian R. Gordon	1743	

All participants (applicant, applicant's representative, PTO personnel):

(1) Brian R. Gordon.

(3)_____.

(2) Peter Bilinski.

(4)_____.

Date of Interview: 12 March 2007.

Type: a) ☒ Telephonic b) ☐ Video Conference
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.
If Yes, brief description: _____.

Claim(s) discussed: 1 and 9.

Identification of prior art discussed: Hughs and Treptow.

Agreement with respect to the claims f) ☐ was reached. g) ☒ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: See Continuation Sheet.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

BRIAN R. GORDON
PRIMARY EXAMINER

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.


Examiner's signature, if required

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: The examiner informed applicant that the proposed amendment would not be sufficient for overcoming the prior art of record. The examiner explained the interpretation of the term window as supported by the specification and drawings is not a separate element such as a window within a wall of a house. Yet the window of the device is just a portion of the plastic body that allows light to be directed therethrough. Applicant agreed. As such the examiner asserted it would therefore only be required that the structure of Hughes be plastic as to permit light to pass through, which is commonly known in the art. As to the method claim, applicant asserted the prior art does not disclose flattening a meniscus. The examiner stated that the equivalent structure of the prior art would inherently have the same property or function in the same manner when liquid passes therethrough. Applicant further asserted the references were not analogous art. The examiner disagreed for both references disclose structures capable of aspirating and dispensing liquids. Applicant agreed to take the examiner's position in consideration and would file an official response for further consideration..



**250 South Clinton Street, Suite 300
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Telephone: 315-425-9000
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March 9, 2007

To: Examiner Brian R. Gordon Fax No: 571-273-1258
USPTO

From: Peter Bilinski

Subject: U.S. Patent Application Serial No. 10/626,259
METERING TIP WITH INTERNAL FEATURES TO CONTROL
FLUID MENISCUS AND OSCILLATION
Our File No. 961_013

You should receive 10 page(s) including this cover sheet. If you do not receive all pages, please call (315) 425-9000.

COMMENTS:

This will confirm the telephone interview scheduled for Monday, March 12, 2007 at 2:00 p.m. in connection with the above-captioned matter. To that end, please find a DRAFT - FOR DISCUSSION PURPOSES ONLY Amendment in Response to Final Office Action in connection with the above-captioned matter.

Thank you for your consideration.

*DO NOT ENTER
Proposed
claims*

IMPORTANT - THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED, AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. IF THE READER OF THIS MESSAGE IS NOT THE INTENDED RECIPIENT, OR THE EMPLOYEE OR AGENT RESPONSIBLE TO DELIVER IT TO THE INTENDED RECIPIENT, YOU ARE HEREBY NOTIFIED THAT READING, DISSEMINATING, DISTRIBUTING OR COPYING THIS COMMUNICATION IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THIS COMMUNICATION IN ERROR, PLEASE IMMEDIATELY NOTIFY US BY TELEPHONE, AND DESTROY THE COMMUNICATION. THANK YOU.

MARJAMA & BILINSKI LLP

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the U.S. Postal Service as Express Mail, Airbill No. EV954203508US, on the date shown below in an envelope addressed to: MS AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Dated: March 6, 2007 Signature: _____

(Cheryl M. Nichols)

Docket No.: 961_013
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Zhong Ding et al.

Application No.: 10/626,259

Confirmation No.: 9582

Filed: July 24, 2003

Art Unit: 1743

For: METERING TIP WITH INTERNAL
FEATURES TO CONTROL FLUID
MENISCUS AND OSCILLATION

Examiner: Brian R. Gordon

DRAFT - FOR DISCUSSION PURPOSES ONLY

DO NOT ENTER

AMENDMENT IN RESPONSE TO FINAL OFFICE ACTION

MS AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INTRODUCTORY COMMENTS

In response to the final Office Action, dated October 13, 2006, please amend the above-identified U.S. patent application as follows:

Amendments to the Claims are reflected in the listing of claims, which begins on page 5 of this paper.

Remarks/Arguments begin on page 5 of this paper.

Application No. 10/626,259
Amendment dated March 6, 2007
Reply to Office Action of October 13, 2006
DRAFT – FOR DISCUSSION PURPOSES ONLY

Docket No.: 961_01301

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A metering tip capable of aspirating and dispensing a quantity of fluid, said metering tip comprising:
a tapered plastic body including an interior, an upper tip opening and a lower tip opening used for aspirating and dispensing the fluid;
said interior including a plurality of adjacent stepped areas, each of said stepped areas including a sharp diametrical edge ~~for~~ at the junction of the surface of an interior region and the surface of the stepped area, said surfaces being substantially orthogonal and wherein said sharp diametrical edge is capable of latching a fluid meniscus of the fluid and minimizes minimizing oscillation of a dispensed the fluid, said tip further including an axial portion including a cylindrical region having a substantially constant internal diameter, said cylindrical region having a read window and wherein said tip interior further includes at least one stepped area disposed between said read window and said upper tip opening.

2. (Canceled).

3. (Canceled).

4. (Canceled).

5. (Currently Amended) A metering tip as recited in Claim 3 1, wherein said plurality of adjacent stepped areas are axially disposed between said lower tip opening and said read window.

6. (Currently Amended) A metering tip capable of aspirating and dispensing a quantity of fluid, said metering tip comprising:

a tapered plastic body including an interior, an upper tip opening and a distal lower tip opening used for aspirating and dispensing the fluid, said body further including an axial section ~~interior~~ comprising a cylindrical region having a substantially constant internal diameter, at least a portion of said axial section ~~eylindrical region~~ defining a read window;

said interior including at least one stepped area having a sharp diametrical edge for at the junction of the surface of an interior region and surface of the stepped area, said

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surfaces being substantially orthogonal and wherein said sharp diametrical edge is capable of latching a fluid meniscus of the fluid and reducing oscillation of a dispensed the fluid, wherein said at least one stepped area is disposed above said read window between said read window and said upper tip opening to permit accurate readings of a fluid volume in said tip through said read window.

7. (Currently Amended) A metering tip as recited in Claim 6, including at least one stepped area disposed beneath said read window, between said read window and said lower tip opening.

8. (Currently Amended) A metering tip as recited in Claim 7, including a plurality of adjacent stepped areas disposed between said ~~distal~~ lower tip opening and said read window.

9. (Currently Amended) A method for reducing fluid oscillation for a dispensed of fluid from in a metering tip, said method including the steps of:

i) aspirating the fluid into a metering tip comprising providing at least one stepped area within the interior of a the metering tip, said at least one stepped area including a sharp diametrical edge at the junction of the surface of an interior region and surface of the stepped area, said surfaces being substantially orthogonal; and

ii) moving a meniscus of the aspirated fluid past the sharp diametrical edge thereby for latching a fluid, the meniscus of the fluid passing said at least one stepped area and thereby reducing oscillation of the fluid in the metering tip wherein said metering tip includes a read window and in which one of said at least one stepped areas is located above said read window between an upper tip opening and said read window for flattening a meniscus of a retained volume of fluid within said tip in order to permit an accurate optical reading through said read window.

10. (Canceled).

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11. (Previously Presented) A method as recited in Claim 9, wherein said metering tip includes an upper tip opening, a lower tip opening and in which said fluid is aspirated into the lower tip opening of said metering tip during said aspirating step.

12. (Currently Amended) A method as recited in Claim 9 ~~10~~, including the additional steps of drawing fluid up into the interior of said metering tip and sealing the lower tip opening of said metering tip prior to performing a spectrophotometric read of said fluid through said read window.

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Amendment dated March 6, 2007
Reply to Office Action of October 13, 2006
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Docket No.: 981_01301

REMARKS

A Request for a Two (2) Month Extension of Time pursuant to 37 CFR §1.136(a) and (b) is attached hereto.

The above-captioned patent application has been carefully reviewed in light of the final Office Action to which this Amendment is responsive. Claims 1, 5-7, 9 and 12 have been further amended in an effort to further clarify and particularly point out that which is regarded as the present invention. To that end, it is believed no new matter has been added. Claims 2-4 and 10 have been canceled.

Claims 1-12 are pending. Each of the pending claims have been rejected in light of certain prior art, while Claims 9-12 have been rejected under certain paragraphs of Section 112. Applicant respectfully requests reconsideration based on the amended claims, as well as the following discussion.

Turning to the prior art rejections, Claims 1 and 2 have been rejected as being anticipated by Hughes (U.S. Patent No. 3,449,081) under 35 USC §102(b). Applicant respectfully herein traverses this rejection. Applicant has now added the language of Claims 2-4 to the body of Claim 1. As a result, it is believed this anticipation rejection is now rendered moot. Withdrawal of same is therefore respectfully requested.

Claims 3-12 have been rejected under 35 USC §103(a) based on the combination of Hughes and Treptow et al. (U.S. Patent No. 5,844,686). Applicant respectfully traverses this rejection. In order to maintain a successful "prima facie" obviousness rejection under the Statute, each and every essential claim limitation must be found in or suggested by the prior art. There must be suggestion found in the prior art as a whole to combine references together to create the claimed invention. To that end, each cited reference must be read in its entirety and not in a piecemeal fashion using impermissible hindsight (i.e., advance knowledge) of the invention.

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The Examiner has relied upon Figs. 4 and 6 of Hughes to describe a tapered, plastic tip that includes respective upper and lower tip openings, as well as a plurality of interior stepped portions therein. These interior stepped areas in the interior of the tip or the bottle to which the tip is attached thereto, appear to have nothing to do with reducing oscillation or latching a meniscus, at least as far as the Hughes patent discusses. More particularly, the cap is a screw-on cap-(see col. 3, line 51-52) and the stepped areas appear to directly relate to the attaching function/features of the cap. Clearly, there is no such teaching or discussion with regard to the subject matter of Applicant's method claims.

Based on Applicant's reading of the Office Action, it appears to be the Examiner's contention that all of the features of the claimed invention with the exception of the read window are disclosed in Hughes and that Treptow is cited for including the latter feature in a pipette tip. Applicant respectfully disagrees with this characterization.

It is known to aspirate fluid into a metering tip for purposes of dispensing same as part of a typical metering cycle wherein fluid is supported within the tip by a combination of forces as noted at page 2 of Applicant's specification, see paragraph [0004]. As noted, Applicant has provided a tip that includes a plurality of interior stepped areas that permit a meniscus of fluid to be latched so as to slow the movement of the fluid and minimize oscillations of the fluid. In addition, the tip includes a read window to permit spectrophotometric reads to be taken through the window. It is desirable to take readings while the tip is still attached to a metering apparatus. As noted with reference to Fig. 12 and paragraphs [0028], [0029], and [0030] of the specification, a dead volume is drawn up into the nozzle of the tip prior to sealing of the tip. In drawing the air bubble upwards into the nozzle, the upper meniscus of the fluid becomes a concern with regard to a later spectrophotometric read in that surface tension could cause this meniscus to take on a spherical or other shape that would affect the accuracy of the optical reading. Therefore, a stepped area is provided just above the read window; by above, it is meant between the upper tip opening and the read window. This stepped area is used to latch and therefore effectively "flatten" the

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upper meniscus of fluid of dead volume and, as a result, improve the accuracy of the optical tests.

As noted above, Applicant has now amended Claim 1 to include the subject matter of Claims 2-4. It is respectfully submitted that Hughes fails to include an interior stepped area that is provided between a read window and the upper tip opening in order. The inclusion of Treptow also fails to include or suggest this feature. As a result, it is believed that a prima facie obviousness rejection cannot be made in that neither reference includes specifically recited features. Therefore, reconsideration is respectfully requested. Claim 5 is believed to be allowable for the same reasons since this claim depends therefrom.

Applicant has also amended Claim 6 to positively recite that the metering tip includes a stepped area "above" the read window for improving the accuracy of an optical reading of a fluid volume in the tip taken through the read window. Although Applicant has added functional language, it is respectfully submitted that neither Treptow nor Hughes provides the structural feature of a stepped area nor is there any motivation to provide such an area, absent knowledge of the present invention. Support for the amended claim is found at paragraphs [0028] – [0030] and Fig. 12. Therefore, no new matter has been added. Reconsideration is respectfully requested. Claims 7 and 8, dependent on Claim 6, are believed to be allowable for the same reasons.

Independent Claim 9 has also been amended to include the subject matter of Claim 10, now canceled. More particularly, this claim has been amended to positively recite that the metering tip includes a read window and in which one of said at least one stepped areas is located above said read window between an upper tip opening and said read window for flattening a meniscus of a retained volume of fluid within said tip in order to permit an accurate optical reading through said read window. As previously noted, neither of the cited patents to Treptow or Hughes includes or suggests these features, whether singly or in combination. Therefore, it is believed there can be no

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prima facie obviousness rejection under the Statute. Reconsideration is respectfully requested. Claims 11 and 12 are believed to be allowable for the same reasons.

Claims 9-12 have been rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The Examiner has expressed concerns that Applicant has failed to provide proof of support for the amendments to Claims 9 and 10 and to the addition of new Claims 11 and 12. Applicant apologizes for not being sufficiently precise with regard to this denotation. With regard to previously amended Claim 9, the added subject matter is provided in paragraph [0024], in which the latching of the fluid meniscus 82 is described as the meniscus moves past each internal diametrical edge, the interior edges being sharp and further illustrated in Figs. 4-10. By providing a series of stepped areas 68, oscillation is reduced. In addition, Fig. 12 evidences stepped areas both above and below a read window 96 – as discussed in paragraph [0030] with regard to a stepped area 92 that is disposed above the optical read window 96.

With regard to new Claim 11, an upper tip opening and a lower tip opening for a metering tip are described with regard to paragraphs [0003] [0004] and figures 1 and 2. Clearly, each of the metering tips permit aspiration through a dispense end of a metering tip as acknowledged prior art. Reference is also made to paragraph [0028]. The sealing step of Claim 12 is described in paragraph [0027]. Again, Applicant apologizes for any inconvenience with regard to this previous notation.

Claim 10 has also been rejected under 35 USC §112, second paragraph, for failing to particularly point out and distinctly claim the present invention. To that end, Applicant has incorporated the Examiner's suggestion and amended Claim 9 to note the read window as being already being manufactured into the tip.

In summary, it is believed the above-captioned application is now in an allowable condition and an expedited Notice of Allowability is earnestly solicited.

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The Director is herein directed to charge Deposit Account 50-0289 for the fee for the requested one month extension of time. The Director is hereby also authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-0289 under Order No. 961_01301 from which the undersigned is authorized to draw.

Dated: March 6, 2007

Respectfully submitted,

By _____
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